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It is almost impossible to give an account of a typical daily economic routine for men and women. Activities vary greatly in terms of nights of the moon, conditions of tide and weather, number of members in the household and their ages, the occurrence of deaths, births, and marriages, and nowadays the day of the week. Fishing is governed almost entirely by moon and tide conditions; one day a man may fish early in the morning, the next day, late in the evening, and on a third day, he may fish all night and not at all during daylight. Deep-sea fishing is more frequent toward the end of the week, when it is necessary to lay in supplies to cover the workless day of Sunday, and just before feasts. Where there are several adult members of the household, some men fish while others gather nuts and work around the village. Where there is only one male in the household and several small children, the father is busy all the time with the most varied activities. The amount of cooking done by the woman depends on the amount of fishing done by the male members of the household, the occurrence of feasts, and the day of the week. The woman goes to her talo beds about twice a week to cultivate and to fetch talo for cooking. Cooking is simple at the beginning of the week, but for the weekly Sabbath feast much trouble is taken and cooking goes on for the most of the preceding day. Wet weather is best for mat making because the pandanus elements become soft and pliable. Continued rain throughout the day sends a woman to her plaiting, no matter what else she had previously planned to do.

[285]

ORGANIZATION OF WORK

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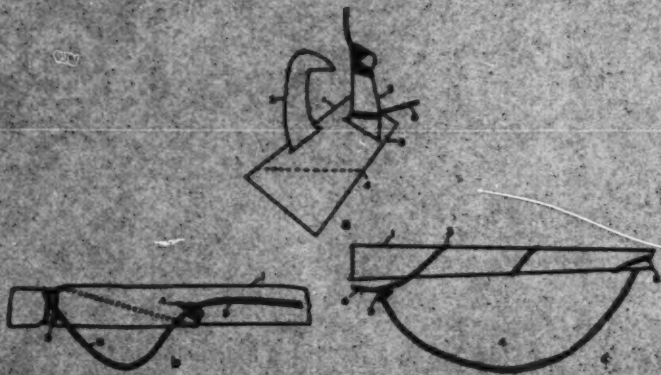
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The main occupations of Pohnpeian economic life—fishing, house building, cultivation, canoe building, and today copra making—all require some form of cooperation, whether of a simple or complex type. The determining factors are the type of work, kinship, locality, and sex. The size of the working group depends on the importance of the event or the magnitude of the work. Deep-sea fishing, mat making, and cooking can be performed with only a simple combination of labor, that is, all workers carry out the same activities. The fishing may be simply cooperative, as when men from one or more households fish together to provide food for a prospective feast, or competitive, when the men of each village fish together as a group in competition with men from the other villages. Mat making is usually done by only one woman, but when the household supply of mats is depleted and it is necessary to make mats for a coming wedding, a woman invites her friends or relatives to participate in a small working party. Several women come together and each works on a section of the mat, or else one takes over the plaiting when the first worker tires. The weavers are fed during the time they are assisting in the mat.

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A man catches his *kaloua* bait in the morning. Besides his fishing gear and two or three coconuts for his day's lunch, he takes with him coconut-leaf mats (*pole laamu*) which provide protection from sun and rain and serve as sails. A mat leaning against the fisherman's back while he waits for a bite is easily thrown aside when strenuous activity is required to haul up the fish on the line before the sharks can take the fish from the hook. When the canoe is lodged to the reef and there is only a gentle breeze blowing offshore, a mat sail is used to prevent drifting onto the reef, thus obviating the necessity of paddling out from the reef again and again. A big sail in a fishing canoe would be cumbersome and would catch too much wind. A mat standing up in the canoe, with vertical midrib base and light guys running to outrigger booms providing support, gives sufficient belly to catch the wind and keep the canoe off the reef without dragging anchor.



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FIGURE 4.—Implements for fishing and bird snaring. a, fishhook with bait attached: any dead fish bait (*mauau mauu*) is attached to old style hook by removing head from bait fish and stripping off fillet (1), enclosing backbone from belly backward so that flesh remains whole; hook: (2) thrust through tail end (3) of fillet from flesh side, back through head end of fillet from skin side; fillet folded (4) along hook (dotted line), flesh side outward, skin side inward, and tail end of fillet lashed to shank (5) of hook, near shank hook, by transverse turns of bait string (6), fastened with half hitch. b, bird snare (*pole snare*): pole (1) about 15 feet long, 3 inches in diameter; snare (2) two-ply twisted snare; one end of snare passed transversely around notch end of pole (3), then down underneath two transverse turns; short free end (4) tied in square knot as tight; running end (5) passes down pole to bird catcher's hands at proximal end. c, fish snare (*houpole*) (Chiga): wooden support (1) of *poupa* wood about 6 feet long, 1½ inch in diameter at proximal end, ¾ inch in diameter at distal end which is notched (2); snare cord (3) of strong, three-ply twisted tree, wound around support, passed over notch (2) to form noose (4); free end knotted on light (5) and cord (6) passed to proximal end of support.

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Today means fishing from a stationary canoe outside the reef with dead bait differs in two respects from both *hau* and *mauau* fishing: today means fishing in deep-sea hand-line fishing up to about 200 fathoms and involves

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— labors. If this place is not shady, the owner erects a shade of coconut mats (*takepa*) on poles to protect workers and canoe timbers. Caulking material, lashing saws, and canoe timbers are provided by the owner. The expert provides his own implements. (For the food financing and payment for the completed canoe, see p. 92).

322 Expert carpenters value their good name as quick workers and rarely dawdle over a job, because this would lay them open to criticism and would militate against further building contracts. As long as the expert and his assistants work conscientiously they are well fed. There are no songs or sayings about lazy carpenters, but a quick and skillful expert will be sure to have his name praised in a chant. Informants suggested that about one moon of continuous work with shell adzes was formerly required to finish an average-sized canoe.

322 Some experts possess a trade mark (*wakamailongo*) which they carve roughly on the front of the bow piece of canoes they build. Such a mark is the head of a fish, the beak of a bird, or some other part of an animal. 531 Taakai puts a sign of two crossed hands on the wave guard (*malas puka*) of each canoe he builds.

552 Canoes may be named by their owners. An appropriate canoe name is *Ta Manga* (Shark) or *Ta Punga-o-Witi* (Coral-rock-of-Fiji). This name is mentioned to the people who attend the canoe-finishing feast (*inu kai wakamailonga*) and the canoe is henceforth known and referred to by this name. Today some men roughly carve or paint the name on the bow of the canoe.

CANOE CREW

502 The canoe crew is known collectively as *waea vaka*. Specialized names for crew members of the flying-fish canoes have already been mentioned (p. 98). In general, the captain of the canoe crew is termed *tau muli vaka*. He is the steersman and leader of the crew. Formerly, especially for long distance voyages, he was usually a priest (*vaia*). If he did not have priestly powers, one of his crew, who was a priest, consulted the gods in times of need.

502 The second member (*wailuvuli*) of the crew (moving from stern to bow) who sits on the aft cross boom (*takepa ki muli*) is second in command and corresponds to mate. Should the captain die on a long voyage, he automatically takes command of the canoe. If the captain lays down his steering paddle to fish or rest, the *wailuvuli* takes up the steering. He helps to steer in strong seas or a high wind, and uses his paddle as a make-shift keelboard when the canoe is sailing by the wind. He further sends the main down (*waea*) when the sail is up, watching wind pressure and direction.

The group of paddlers (*vaiala*) are termed collectively *totani*. They are

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Canoes are bailed dry and excess moisture is wiped out with wringers of coconut fiber. They are covered with old coconut-leaf mats (*pola*), unplaited dry coconut leaves, and pieces of pandanus matting. This canoe covering is termed *koukou lamo* or *tapola*. Coconut-leaf butts and lengths of timber are leaned against the covering to prevent its blowing away in the wind.

Formerly canoes were never anchored with a cable to prevent them from drifting. A stick, called *ibi towia*, was driven into the sand of the resting place of the canoe just forward of the stern cross boom on the port side of the canoe between the hull and the longitudinal spar. This served to anchor the canoe securely because the top end of the stick projected well above the cross boom.

CULTIVATION AND HARVESTING

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The vegetable foods of the Pukapukans are limited to coconuts, talo, *pulaka*, bananas, and pandanus. Today a few papayas and limes grow on Motu Kotawa. Coconuts and talo were and are the staple vegetable foods; the coconut is immeasurably the more important. All parts of the coconut tree were used for food as well as clothing and ornament; its value led the people to study every phase in growth of fruit and tree. Any Pukapukan can distinguish stages in the growth of the nut by a glance at a tree, however high; and he will climb only that tree which has on it the particular fruit for his purpose.

COCONUT

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The origin of the coconut is told in the following Pukapukan version of a widespread Polynesian myth.

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Manieff and Maniepopo were a Pukapukan man and wife. Maniepopo conceived a child by her husband and, as is the habit of women at this time and in this condition, she longed for special and strange foods to eat. She had tasted everything that her husband could bring her, but still she longed for other foods. Her husband fished and fished and brought her home his catch, but she refused to eat it, saying, "This fish smells rotten to me. Take it away. I do not like it. Go fishing again and bring me some other fish." So he went fishing again, and this time brought home some sweet fish, fat and delicious. But again his wife refused to eat, saying, "This fish is too sickly sweet. I don't like it." This went on for many days, the husband procuring all kinds of new fish, the wife refusing them all, until he was worn out with his toil, while his wife pined away for food. At last he said to her, "Tell me what kind of fish it is that you long for, and then I will try to bring it to you." She replied, "There is one fish only that I desire and that is a piece of the *tuna* eel."

The man got his bait and hooks and went to the hole of the *tuna*. He baited his hook and threw it into the hole, but the *tuna* would not bite. He tried many kinds of bait fish in turn but with no luck. At last in despair he tried a bait of flowers and leaves, but still the *tuna* would not bite his hook. In the end, when he was about to give up altogether, he thought of his wife sitting at home waiting for him and decided to make one more try. For this last effort he baited his hook with the strong-perfumed

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for a type Rakahanga house, save that the Pakapukan commencement differs slightly from the Rakahanga technique. The Pakapukan lashing is shown in figure 9. This lashing is extremely common in Pakapuka on both houses and canoes, and is the only lashing used when it is necessary to fasten together securely two crossing elements.

Thatching

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All houses in former days were thatched (*eto*) with coconut roof sheets (*pole faunu*). The method of plaiting the double coconut sheet is that described by Beck (26, pp. 7-11, figs. 6-10) for Aitutaki. Before being made into roof sheets the coconut leaf midribs are soaked in salt water for a few hours to free them of insects. The roof sheets are attached to the rafters by a continuous two-ply twisted coconut cord (*sis*); the method of passing the cord through the sheets from the inside of the house and back from the outside is that described for Aitutaki (26, pp. 19-21, figs. 23-25). A special thatching needle (*yaki*) is used in Pakapuka, however, to facilitate this work. Two methods are distinguished by which the sheets may be applied to the rafters:

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In one method (*eto yaki lau*), the sheet midribs are all of the same length. They are applied in courses running from eaves to ridgepole, the midrib about one inch apart, contiguous courses overlapping. In the second method (*eto tele*) some roof sheets are made with short, some with long, midribs. Long midribs (*ai pole*) alternate in each course with short midribs (*pa pole*) and the sections running from eaves to ridgepole are not defined as in the *eto yaki lau* method. The *eto tele* method of applying the sheets is more laborious than the *eto yaki lau* method, but a well-thatched roof of this type is more nearly waterproof and lasts up to 10 years, whereas an *eto yaki lau* roof, though more easily and quickly applied, rarely lasts longer than four to five years.

In thatching a roof section, a long doubled sheet (*pole wamau*) is placed on the rafters above the eaves. A long sheet is placed on top of this and the lashing to the rafters commences. Short sheets alternate with long sheets. As the thatching advances up the side of the roof, a worker lifts up the roof sheets to those who are lashing from the inside by shoveling them with a lifting pole (*taka pole*), which has the customary shoulder point. In both methods of thatching it is arranged that the last sheet to be applied to the side is a long one. On top of this and overlapping the ridgepole break (*ai*) between the thatchings of the two sides is placed another sheet (*pole ai*), covered by still another sheet (*pole tepete*). Over all is placed a coconut ridge mat (*takapu tepete*), made of two split half leaves and one whole leaf as described for Aitutaki (26, pp. 24-25, figs. 28-34). The gable ends are thatched in the same manner, starting from the double sheet at the eaves and working up to the ridgepole. The sheets are shortened as the thatching comes closer to the ridgepole. At the top a small space is usually left for ventilation, and at the sides the edges of end sheets are often wedged in between the sheets that form the side thatching. Some leave the overhanging sheets at the eaves ragged and irregular, but others carefully trim the eaves edge of the sheets in an even line (*hahiahi to hahiahi wala*).

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When heavy winds are expected, the thatching of coconut-leaf sheets is reinforced by lashing together the tip ends of two coconut midribs, which are then slung over the roof thatching in such a way that one midrib falls

341 on one side of the roof, the other midrib on the other side. Where the roof
254 is low, leaflets at the butt end of each midrib are carried under the eaves
335 and tied to a thatch rafter. Where the roof is high, the weight of the
midribs is sufficient to hold down the roof securely. A number of these
double midrib slings are placed at intervals along the roof for added protection.

[177] House thatching with pandanus leaves was introduced into Pukapuka by missionaries from Rarotonga. The method in use conforms in every particular to the Aitutaki method (26, pp. 11-14):

314 Pandanus leaves are collected in the reserves, and straightened (*see laumala* or
323 *paule laumala*) by passing them around an upright stick (*lahu* now *laumala*). The
285 leaves are then fastened in bundles (*pehi laumala*) by placing the tip end of each leaf
over the butt end and tying the ends of a number of leaves together. The leaves are
beaten over and sewn to strips of wood split from the aerial roots of the pandanus. A
sewing needle (*na*) is used to split the longitudinal veins of the pandanus leaves so
that the coconut leaf midrib (*tuaki*) may be inserted to keep the leaves in position
on the wooden strip. The completed roof sheet is called *paule laumala*.

Framework Construction

341 Pandanus wood is used almost exclusively in the framework of the
335 *mahepa* type house. Formerly the wall posts were buried about 12
inches in the ground, but in a modern house of this type, four ground posts
are supported on low, grooved coral stones and the wall posts are fitted to
these ground posts by mortise and tenon joints. In the modern house the
tendency is also to fit together tiebeams, wall and roof plates with mortise
and tenon joints, but in the old house this would have required much labor
with shell adzes. Hence only the tops of the wall posts were grooved
(*mahepa* *pa*) to receive the wall plates, the heads of the rafters clipped
out (*mahepa*) to fit against the ridgepole, and roof plates grooved (*mahepa*)
to fit against the tiebeams. If it is necessary to leave a house framework
unthatched for several days all the principal posts are wrapped with
coconut-leaf mats (*tahepa*), and rafters are covered with a few coconut
midribs, to protect the timbers from rotting or warping in sun or rain.

Wall Mats

341 In old houses of the *mahepa* type, walls are made with coconut-leaf
285 mats (*tahepa*). Mats are made long enough to overlap two wall poles,
284 the depth of plating for each mat being about 12 inches. In a typical house,
four mats form a set between each pair of wall poles. The mats are supported
at their upper, midrib edges by two or three coconut cords spaced
equidistantly between the two edges. The method of support is the same
[171] as the Samoan method (27, pp. 72-74, fig. 79). The mats operate on a Vene-

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254 than blind system and are raised and lowered according to the direction of the prevailing wind. The overlap of the mat screens against the wall poles prevents their being blown inward by the wind.

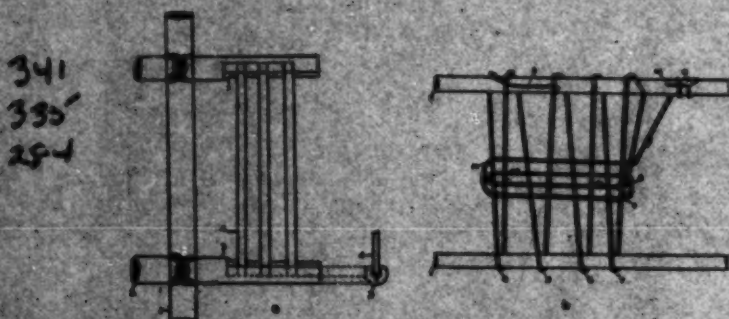


FIGURE 10.—Details of house construction. A, making of house wall (vertical): 1, wall post; 2, horizontal wall logs; 3, point at which slotting of inner surfaces of wall logs commences; 4, thin rail fitting at each end into slotted wall logs. B, suspended loop bracing (yasa amakama), bracing first and second ridgepoles (see notes, too low), also bracing third and fourth ridgepoles (tawata and nia mawata) in model made one house: 5, main ridgepole; 6, second ridgepole; 7, buried commencement end of second ridgepole; 8, four figure-of-eight turns (4, 5, 6, 7) made around both ridgepoles; free end (8) passes in one circumferential turn round four figure-of-eight turns; free end then passes (9) through lower loop of figure-of-eight and back through upper loop (10); lashing finishes with overhand knot made on one cord of outer loop or the free end passes up to second ridgepole where it makes two or more turns (11) and finishes buried underneath two turns (12) and pulled tight.

Wooden Walls

341 Low walls (vertical) are sometimes added to dwelling and cock houses
335 of the *malapua* type by the following method, said to be old:

Two posthole logs about 6 inches in diameter are run between the wall posts, one log at ground level, the other about 30 inches from the ground. A rough slot is hollowed out about 3 inches deep and 2 inches wide on the inner surfaces of the two logs. A series of *pupua* poles, about 3 feet long and 1½ inches in diameter, is inserted vertically between the two logs, the upper and lower end of each pole resting in the slots. This wall, which resembles a close-set railing fence (fig. 10A), incloses the house on three sides, leaving one end open for a door. On the outside of this low wall and between the top of the wall and the roof eaves (if the eaves are high), *tekepa* mats are hung for extra protection. Cook houses rarely add the extra mat protection unless they are in exposed situations. The method of adding a wall to a house by inserting horizontal slats between uprights and tying the slats together by a continuous cord of which is captured and interlaced from *Beaglehole*.

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357 and kept on rough platforms made by laying longitudinal members across
377 the tiebeams of the house. Plaited pandanus satchels (*talama*, p. 134) for
415 valued fishhooks and larger satchels of the same type for minkas and other
items of dress were also kept on the tiebeam platforms.

Plaited pandanus pillows (*alunga laukama*, p. 134) and wooden headrests
(*alunga lauk*; fig. 12, d) were in occasional use. Most people, however, did
not go to the trouble of making a special pillow but used for this purpose
any suitable block of wood. Soft driftwood was favorite material, a piece
of cork of suitable size and thickness being most prized. Today, the usual
177 headrest is a block of wood inserted into a European pillowcase and packed
354 tight with a thin layer of kapok. This pillow combines a desired hardness
with the prestige value of using a European object.

352 Wooden back rests (*talv*; fig. 12, c) were occasionally made in former
516 times. Made of unshaped wood, they were used for resting in a reclining
position inside or outside the house.

Insect swatches (*wea*) are in great demand when mosquitoes (*ama*)
become vicious:

358 These swatches are quickly made by superimposing three sections from the tip end
285 of coconut leaf midribs, each section carrying 20 to 25 leaflets. These are bound
412 together by several transverse turns of fiber from the coconut leaf midrib or by passing
two leaflets from the bottom midrib around the several midribs in opposite directions
and tying the ends together with overhead knots. The swatch is discarded when the
leaflets become dry.

Brooms (*velovelo*) made from kinkit midribs are in common use to
sweep up rubbish from the floor of dwelling or cook houses.

A short broom (*velovelo kaka*, *Chaga*) is made of midribs (*tae*) stripped from
coconut leaflets and dried in the sun. These are caught about 1 inch from the proximal
end in a three-ply braid of pandanus material (*lilo*) about 1/2 inch wide. The projecting
midrib ends are bent over and braided with one of the *lilo* plies as a single ply. The
braiding is continued for about 25 inches; for this length, about 170 midribs are required.
When all the midribs have been added, the braiding is continued for about 6 inches and
fastened with an overhead knot (*wehepene*). Starting with the commencement end,
the braiding is rolled (*apepepe*) on itself to form a convenient bundle of midribs. The
free end of the braid is wound around the butt ends (*mulikau*) of the midrib and
fastened with an overhead knot. The distal ends of the midribs are trimmed off to
make bristles about a foot long.

A large broom (*velovelo kaka*) for sweeping the ground outside the house is made
from hard coconut midribs that have dried on the leaflets. The midribs are gathered
together in the hand and spread evenly around the end of a long handle, generally a
length of spangle wood about a foot long. The butt ends of the midribs are fastened
to the handle with transverse turns of sennit, commencement and finishing ends being
braided underneath the turns.

354 Lighting inside the dwelling house is usually provided by burning a few
372 dry coconut shells on the floor. Today lanterns are fairly common.

Isle of Beaglehole and Beaglehole E-5 (1934-5) 1938 Pukapukans

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445 631 412	BOWL NAME	LARGEST DIAMETER	SMALLEST DIAMETER	DEPTH	REMARKS
	—(a)	22"	15 5/8"	7"	No legs.
	—(a)	17"	11"	4"	Right leg plain, bored with hole to facilitate hanging. Left leg conventional phallic symbol. (See fig. 13.d).
	Pine	9 7"	7"	10 1/4"	Each leg 9" long and curved into realistic phallus. Bowl holds 1000 talo corns. Two food mixers accompanying this bowl are of mangrove wood, each 23 5/8" long and 2 1/2" diameter at pounding base.
	Palm-leaf	4 5"	1 5"	12"	Legs plain, 11 1/2" long and 3" diameter in cross section. Bottom shaped like a turtle back (see vase) and propped with stems when in use. Holds 400 corns.
	Kia	9 4"	1 3"	10 1/4"	Legs plain, 11" long, 4" by 2" in cross section. Turtle-backed. Holds 1000 corns.

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415 Large coconut shells in which to cook talo are set aside whenever they are available. The cook always tells a person about to open a large coconut to crack it with care and put aside the shell when he has drunk the liquid and scooped out the flesh. Shells are thrown away after being used once as cooking utensils.

PLAITING

265 Plaited articles of coconut leaf or pandanus material are still in common use in Pukapuka. Among these articles are plaited roof sheets and wall screens, floor and sleeping mats, and articles used for transporting, storing, and serving foods. Formerly plaited articles were used also for everyday and ceremonial dress.

In the following brief description of Pukapukan plaited articles, the terminology used is that established by Buck (27, pp. 164-168).

PANDANUS MATERIAL

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314 Pandanus trees are not cultivated to provide material for mat making. Plaiting material prepared from the leaves (lee) of the wale variety is termed *lee*, and from the yale variety, *lee-wale*.

The method of preparing *lee* material is as follows:

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372 A woman collects green pandanus leaves from trees in the reserves and brings them back to the village. While the first she has made of dry coconut midrib and betel is burning, she takes each leaf and slices off (using with a knife, frequently with a sharp

314 shell), the longitudinal ridge (*taa toa*) on its back (*taa yipi to taa'a to lito*). The
372 back of the leaf is termed *taa*, the front, *aloalo* or *vakavaka*. When the fire has burned
down to red embers, the worker passes the leaves in bundles of about 10 back
and forward over the embers for about 1½ minutes or until the leaves are thoroughly
warm (*taa toa to lito hi lango o to aua*). Some women heat the leaves over the
embers before stripping off the back ridge. She next cuts off the narrow ends of the
leaves so that the width of each leaf is fairly uniform throughout.

314 The next process is bleaching (*vahevahe to lito*). The leaves are spread on
the ground in the sun, gathered in at sundown each day, and spread again the next day,
for several days.

Next the leaf is made smooth (*yoyale to lito hi te agaiya*). The worker takes the
butt of the leaf in her left hand, the rest of the leaf in the right hand in which she
holds a dry half coconut shell. She presses the outer surface of the shell against the
leaf surface and draws the leaf through her right hand. This smooths the leaf, which
has become curled and twisted in bleaching.

She strips off the spines of the leaf (*yipi to mata tola*) by biting a commencement
with her teeth at the butt of the leaf, then inserting the thumb nail in the slit, and
running it longitudinally down each side of the leaf. She smooths the leaf (*yopini to
lito*) a second time by winding it round the fingers of the left hand, back (*taa*) side
forward, at the same time stretching the leaf until it is as smooth and wide as possible.

314 The final process is making the leaves into bundles (*paka*) by winding one leaf
265 on top of another until a flat, round bundle about 12 inches in diameter results. The
completed bundle is fastened with a strip of pandanus and the material is now ready
for plaiting.

Like *lito*, *laumala* leaves are first heated over the fire and bleached in the
sun. The process then is as follows:

The spines are trimmed off (*yipi to mata tola*). Next, each leaf is split
transversely and longitudinally. The two leaf strips are soaked in the sea. Each leaf
in a bundle of leaves is tied with a single overhead knot to a coconut midrib which is
pushed into the sea bottom of shallow water so that the leaves are covered at low tide.
After soaking for two to three weeks, both front and back strips of the leaf provide a
soft material (*faaka*) used for mats; the *taa* strips of the leaf, soaked for four weeks
or longer, give a soft, flexible material (*hiu aua*) used for plaiting matles. When
removed from the sea, the leaves are washed in fresh water (*vahevahe to lito*).
They are then dried in the shade (*hae to lito he pakahe i loto o te aua*), and
smoothed (*yopini*) by winding around the hand. The leaves are bleached a second time
in the sun (*hae to lito he vahevahe*) and rolled into large bundles (*paka*).

A third preparation of pandanus leaves, termed *laumala pakahe*, is
usually prepared to provide a strong material for some designs. Dry pandanus
leaves are collected from the ground beneath the trees, the spines are re-
moved, and the leaves smoothed and rolled into bundles.

MATS

255 The technical processes in the plaiting of Pukapukan mats correspond
177 exactly to the Samoan technique for plaiting *pape* and *fala* mats (27, pp. 214-
221). Plaiting elements are either single (*lango toa*) as in plaiting thick ma-
terials or material where a soft finish is desired, or double (*lango luo*) treated
simply as in plaiting thin material (*lito*) which is to be sturdy and long-wear-

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177 ing. In plaiting with a single element, the finished surface has the back of the leaf uppermost. In plaiting with double elements, the two single elements are placed together with the back surfaces (*tau*) outward; when the mat is finished, the back of the leaf shows on both sides.

The free single or double element commencement is known as *hauinga pukapuka* to distinguish it from the double butt commencement for single element plaiting (27, p. 217), which is termed *hauinga pa wenua* (foreign commencement). Informants believed that the double butt commencement commonly used today in hat making and satchel plaiting was introduced from Samoa or from the lower Cook Islands after white contact.

The finishing technique follows the Samoan method (27, pp. 218-220, figs. 116-118). It is impossible to fold in the last dextrals when the right hand top corner is reached, so the worker takes a thin strip of coconut midrib about 6 inches long, points it at one end and makes a longitudinal transverse slit in the other end. The free end of the dextral is inserted in the slit and the midrib is passed back underneath the check strokes, drawing the dextral after it. Both the process and the needle are called *yulu*. The dextral is then cut off flush with the dextrals that have been folded back along the finished edge.

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Technical terms employed in Pukapukan plaiting are:

Laga, wai: to plait.

Tavenu: pandanus element.

Tavenu pukupu: a wide element.

Tavenu lili: a narrow element.

Laga tai: to plait with single elements.

Laga tau: to plait with double elements.

Tavenu ki laga, tavenu ki lilo: the element above, the element below, in double element plaiting.

Tavenu: to add elements when working elements have run short and must be lengthened to continue the plaiting.

Kauinga: the commencement corner of the plaiting.

Wakamalinga: the bottom right corner.

Ililikinga: the top right corner where the finishing process (*ilili*) commences.

Wakamalinga no te ililikinga: the top right, or finishing corner.

Tauava: the right or left edge of the plaiting.

Alo: the working shed.

Tonga: the term used to describe the number of elements making up the working shed. The shed is made of 3 to 20 elements according to the thickness of the elements and the skill of the worker. One asks: "Evea te tonga?" ("How many in your shed?") The reply is: "E liliua teua tonga" ("My shed is composed of 20 elements").

Lolotona: the completed part of the plaiting to the left and below the working edge.

Kapi: to fold an element in making the edge.

Haga, vavavaga: a plaiting stroke or series of strokes. To plait in check was given as *tavenu vava tailed*, or *taped tai*; to plait in twilled twos, *tavenu vava tailed* or *taped tau*.

Lau, lapaiga: length, breadth of plaiting surface.

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Like makalakala: brittle plaiting material, easily snapped with slight strain.
Panga paupai: closely plaited mat.
Panga tauape: uneven rough plaiting.
Panga mataitaita: loosely plaited mat.
Yyima: even, straight plaiting secured through uniform tension.

In the commencement stages of plaiting, the worker uses her toes to keep elements steady until she has established a firm working edge. The finished portion of large mats is folded under as the work progresses or else kept flat under heavy stone weights (*wotu mawaga*) so that the working edge may be brought within reach of the hands. Some workers prefer to lay fine plaiting on a smooth board (*papa* or *polepala*): Straight edges, either right or left, are difficult to produce, and a woman's reputation as a plaiter is based on her ability to make them. Of the good plaiter, it is said that she has skilled hands (*lima pataka*), busy hands (*lima tateha*), or quick hands (*lima tevili*). These terms are used in chants by the man who wishes to comment on the plaiting skill of his mistress.

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The plaiting of large mats is an arduous task. By continuous work a woman can plait a mat 6 feet by 4 feet in about 30 hours.

Design is obtained by using alternate elements of *lito* pandanus and *lawa* *pakapaka* pandanus, or by the use of overlaid or through and through elements of red dyed pandanus. The Pukapukan plaiter makes little use of contrasting check and twilled plaiting to make pleasing designs in pandanus work, save in the building-up of a few blocked geometrical designs. The method of preparing red dye and of dyeing (*pau he kuhula*) material for designs is as follows:

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The worker scrapes from the roots of the *new* plant the dirt, rootlets, and dark brown outer bark. She places a coconut-leaf mat (*levalava*) on the ground, covers it with *paupai* leaves, and scrapes the roots a second time to remove the dark yellow bark, which falls onto the leaves. Hot ashes from a fire of coconut butts are added to the bark scrapings and the whole well mixed together with the hands. The mixture is placed in a wringer (*tauape*) of coconut husk fiber and the liquid wrung out into a wooden bowl. The wrung-out bark mixture (*ota*) is placed aside. Strips of *lawa* pandanus are now passed through the liquid, then rolled on the hand and placed back into the liquid. *Pake* leaves are packed on top of the rolls of pandanus and the wrung-out bark is placed on the leaves. The whole is set aside for 24 hours. The bowl is then opened, each roll of material is passed through the hands to smooth the dye on the strip, and placed back in the bowl. Sea water is poured on the wrung-out bark material which is pressed (*lowi*) and mixed with the water. It is then wrung out for a second time and the rolls restreeped for a second 24 hours. The rolls are finally removed from the dye, smoothed with the hands, placed unrolled on a coconut leaf mat (*polepala*) and allowed to dry in the shade. When dry, the material is ready for use.

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Old Pukapukan designs (*houe*) are shown in figure 14. A group of old women recognized only these designs as definitely old. The Pukapukan worker, however, shows great skill in adapting or inventing new designs. A sampler of designs (*Chao*) contains 32. The names of some of the newer

designs indicate the extent to which the environment furnishes ideas for design: *yiku iku*, fish tail; *uho*, two-ply twisted sennit; *louniu*, coconut leaf; *moungounga*, spider; *puyipuyi*, tobacco pipe; *polotiko*, house veranda; *kouatou*, sennit anchor line; *malo pua*, spotted malo.

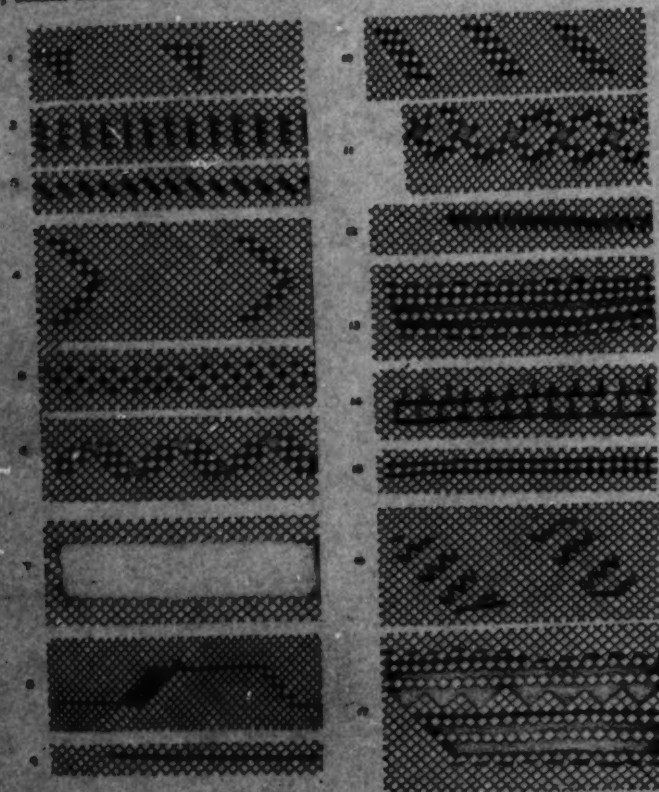


FIGURE 14.—Old Pukapukan pandanus mat designs. Native terminology with available translations: 1, *meleale*, pandanus leaf spines; 2, *te lau uunuu ukukurike*; 3, *eleaga*; 4, *houma*, shark-skin implement for working pearl shell; 5, *hoi tuia*, flash of lightning; 6, *metuholou*, variety of sea cucumber; 7, *hoi anuuu*, rainbow stripe; 8, *oue huu*; 9, *meemeu*, a small blue cigaret-shaped coral growth; 10, *louniui*, banana leaf; 11, *paiehole*, diamond-shaped; 12, *molehu*, centipede; 13, *uuuuu*, rainbow; 14, *fohenuangi*, stone resting platform; 15, *houumalo*, five-ply braided sennit malo; 16, *uikuuuu*, a bundle of *houma* implements; 17, *laui pii*.

Beaglehole and Beaglehole E-5 (1934-5) 1938 Pukapukans

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Bernice P. Bishop Museum—Bulletin 130

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Sleeping and floor mats are made of all three pandanus materials in various sizes for children and adults. The name of the material is added to the general name for a mat (*panga*) to distinguish the various types. Pukapukan mats in Bishop Museum are:

NAME	SPECIMEN NUMBER	MATERIAL	SIZE	WEIGHT TO LBS	USE
Panga laupua	C8090	lauwilo	3'5" square	6	Crawling mat for child
Panga lauwiu ava	C8091	lauwilo	1'11" X 1'6"	5	Mat on which newborn infant is laid
Epaepa	C8094	lauwilo	3' X 6'6"	8	Durable under-mat for sleeping
Panga lito	C8114	lito	3'3" X 4'7"	5	Floor mat
Panga lito	C8122	lito	3'8" X 3'7"	5	Floor mat
Panga lauwaia pukapuka	C8123	lauwaia pukapuka	4'10" X 4'	3	Coarse foundation mat placed under epaepa for sleeping
Panga laumai (mixed) lauwiu ma lito	C8166	lauwilo and lito	5'1" X 3'3"	6	Durable sleeping mat
Panga kie wete	C8121	kie wete	5'4" X 4'	6	Soft mat used to cover body when sleeping

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All the above mats have the exposed sinistral finish described by Buck (27, fig. 118A), except the last which presents two interesting variations in the fundamental plaiting technique:

It is made of single elements to obtain a soft surface, but in order to bind the edges securely, the Samoan fine mat technique of a five-vert braid finish is used in defining the lower border. The commencement edge on the reverse side of the mat follows the method described by Buck (27, fig. 165) and the continuation is the turned back fringe described by Buck (27, fig. 166 right). In the Pukapukan mat the dropped sinistrals are cut off flush with the lower border. The upper, finishing edge follows the Samoan method (27, figs. 163, 164) with the exceptions that the Pukapukan mat has a five-vert braid finish; the fringe ends produced by the projecting sinistrals and dextrals are cut off flush with the border; the right upper corner is not braided into a tail but the last three working dextrals are roughly interlocked by carrying the third working dextral from the end over the corner of the mat and pushing it under one sinistral, then with a forward turn, pushing it under two dextrals and cutting the ends off flush with the edge. The last two working dextrals from the end are turned back at the edge and pushed underneath the third dextral where it passes to the other side of the mat.

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All the mats have overlaid or through and through designs of the customary red-dyed pandanus material. Most of the designs are old but several are obviously modern, for example the turtle (*toona*) and the house side (*talotale*) designs. The mats are more heavily laden with design than is usual because the plaiters felt that many designs were appropriate for what they knew would be museum pieces.

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531 The use of plaited mat material for canoe sails is mentioned on page 181. Informants stated that formerly four light mats were sewn together (*tui*) with strips of pandanus and a fish bone needle to make a sort of rough mosquito net (*oue*).

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292 Malos made of soft pandanus *his* material (*malo his*) were formerly worn by the men for dress occasions. They were worn with the *malo* of pennit (*malo hane*) for wrestling contests and fighting (pl. 3, c). Three malos in the Bernice P. Bishop Museum collection are:

Malo 3901. 31 feet 5 inches long, 6½ inches wide, fringe on upper and lower edges 1¼ inches deep. Wefts 12 to the inch. *Paihiolo* pattern. The technique follows the *Samoa* fine mat style with a lower border commencement of a three-*weft* braid, the dextral and sinistral elements functioning as fringe (pl. 4, B). The top border is a three-*weft* braid finish, the dextrals and sinistral again forming a fringe. The working dextrals on the right upper corner are secured with two overhand knots and are not braided. (See 27, figs. 161, 162, 164.)

Malo 3966. 14 feet 4 inches long, 7 inches wide, upper and lower fringe 1¼ inches deep. Wefts 12 to the inch. *Paihiolo* pattern. The technique varies slightly from the previous *malo* in that the three-*weft* braid fixations are worked on the reverse side, so that the garment was probably turned during plaiting. This is further evidenced by the fact that the knotted tail finish is formed on the right lower corner. Not only the lower and upper edges, but the right side as well, have the braid fixation and fringes. It is possible that the left side was plaited in a similar fashion, making the similarity to the *Samoa* fine mat clear, but the left side is now undefined and ragged, perhaps eaten away by rats.

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178 Malo 4166. 6 feet 8 inches long, 10½ inches wide, upper and lower fringes about ½ inch deep. Wefts 8 to the inch. *Paihiolo* pattern. This *malo* (pl. 4, C) was made as a sample which explains its shortness. The material is soft and pliable, but the modern workmanship is rough compared with the two old malos just described; these malos are no longer made in Pukapuka today and thus the women are not very skilled at the work. The top and bottom edges are fixed by a five-*weft* braid, the left and right edges are given the customary mat turn. The right upper corner finishing dextrals are knotted.

The design material in all three malos is not overlaid but forms plaiting elements. A fourth *malo* examined in the field corresponded in all particulars to the first two malos:

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292 It was 12 feet 7 inches long and 8 inches wide and had the *paihiolo* design. An informant stated that this *malo* was one of several made by his mother and given him when he attained sociological adulthood (*wehete*) about 30 years ago. He suggested that formerly some malos were made 5 fathoms or more long, especially those that might be needed for fighting. I neglected to verify this statement, but if true it means that a *malo* of such length would round the waist would have formed valuable defensive equipment against spear thrusts.

Edge-Partridge (3, 2d ser., pl. 36, no. 4) figures a typical Pukapukan *malo* in the British Museum, 8 feet long, 10 inches wide, and with the usual *paihiolo* design.

1: Beaglehole and Beaglehole E-5 (1934-5) 1938 Pukapukans

134

Bernice P. Bishop Museum—Bulletin 150

SATCHELS, BELTS, PILLOWS

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Satchels of pandanus are used today in Pukapuka to carry to church on Sunday a Bible and note paper with which the sermon is followed and text noted down. The making of these satchels has been introduced from the lower Cook Islands, and the craft conforms in all particulars to satchel techniques described for Manihiki and Aitutaki (29, pp. 127-131; 26, pp. 190-202). Coiled baskets are sometimes made, but the technique has been recently introduced from Samoa by the wife of the resident agent.

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A two-cornered pandanus double, or envelope, satchel called *tuluma* is thought by informants to be old. Small *tulumas* such as the one described below were used for storing fishhooks and pearl-shell ornaments. They were known as *pa tuluma*, and a specially valuable pearl-shell hook was known as *muli tuluma*, (the precious object) after the bottom of the *tuluma* receptacle. Larger *tulumas* were made for the storage of pandanus and sennit malos. The *pa tuluma* (C8120) is made of *lauwala pakapaka* and *lito* materials:

The inner satchel is $9\frac{1}{4}$ inches long, $7\frac{1}{2}$ inches deep and 1 inch wide. The outer satchel is $9\frac{1}{2}$ inches long, $6\frac{1}{4}$ inches deep and $1\frac{1}{2}$ inches wide. The plaiting is coarse, wefts being 3 to the inch. The plaiting is in check, with double elements, alternate sets of elements being dried pandanus and *lito*. The basket is plaited like a strip of mat, the ends brought together and the free marginal wefts plaited to make a cuff plaited in sections to the required depth. The sides are brought together to compress the bottom opening longitudinally; the bottom is closed by check plaiting. The free ends of the finishing wefts are pushed (*yulu*) under three or more elements in the plaiting on the outside of the satchel, pulled tight, and the exposed ends cut off flush with crossing elements. The rim is finished with a level edge by the downward turn of the rim elements.

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Abdominal belt supports worn by women after confinement are made of plaited pandanus:

Belt *Chrys* (*pale amama*) is 1 foot 11 inches long, 4 inches wide. Strings by which the belt is fastened at the back range from $8\frac{1}{4}$ to $10\frac{1}{2}$ inches long. Wefts 6 to the inch. Plaiting is by the simple mat technique in double element check, with *lauwala pakapaka* and *lito* used as crossing elements to form a small diamond-shaped design. When the belt length is finished, material for the strings is pushed through under seven to nine crossing elements at each corner. Four strings are then attached to each corner and braided into a four-ply braid, finished off with a single overhand knot.

Belt *Chrys* (*pale toa*) is 1 foot long, 3 inches wide. Strings range from 8 to $10\frac{1}{4}$ inches long. Wefts 4 to the inch. Plaiting is with double element check of *lauwala pakapaka* and *lito*, forming a simple diamond design. Three string elements are pushed under crossing elements at each corner and braided into a three-ply braid, finished with a single overhand knot. Both belts are shorter than they would be if intended for use by Pukapukan women.

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Informant stated that formerly a pillow or headrest (*ahunga louhama*) was made from plaited pandanus material. As described, the pillow was apparently cylindrical in shape, 12 inches long and 6 inches in diameter at

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313 either end. A hollow cylinder was made and stuffed with banana leaves (see note) or coconut husk fiber (see note). The technique by which this pillow was made has been forgotten, for no woman professed herself able to make the article. Yielding to my suggestion that someone experiment, two pillows were made, but neither conforms to informants' description.

Pillow Cloth has a four-cornered cover $13\frac{1}{2}$ inches long, 6 inches wide and $\frac{3}{16}$ inches thick. It is plaited in single element check of the material. Wefts 3 to the inch. The technique is that of ordinary mat plaiting, plaited in the modern way around a wooden block. The cloth cover is stuffed with coconut fiber and closed by passing finishing wefts under adjacent plaited elements.

Pillow Cloth is also four-cornered, 11 inches long, 5 inches deep, and $\frac{3}{16}$ inches thick. It is plaited in single element check of mixed female *paupaka* and *lilo*. Wefts 2 to the inch. The cover is stuffed with banana leaves.

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291 Hats of European style are made of pandanus materials or prepared
177 coconut fiber. They are of the Panama type, either plain or decorated by change of plaiting stroke or by overlaid strips of red-dyed materials. They are worn as protection against sun and as part of the church-going costume. No head covering or eyeshade of pandanus or coconut leaf was made in former times.

COCONUT-LEAF ARTICLES

MATS AND SHEETS

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[171] The technique of making the Pukapukan coconut roof sheets, roof ridge sheets, and wall screens follows exactly the Samoan technique (27, pp. 169, 174, 176; cf. 26, pp. 7, 24).

Pukapukan coconut leaf mats in Bernice P. Bishop Museum are described in the list given on page 136.

BASKETS

Plaited coconut baskets (generic name, etc) are made with two different commencement—*the twisted, two-strip commencement* (29, p. 107, fig. 25) and the Pukapukan turned-back, two-strip commencement.

In the twisted two-strip commencement, the baskets of each strip, following their natural direction, are twisted over the baskets immediately in front. Two strips carrying baskets are plaited together, the distal-bearing strip above the other strip. To make the plaiting close and neat, one or more extra baskets are added as extra wefts by placing the butt and between two middle strips forming the commencement. This is the two-strip commencement with extra wefts which corresponds to the Tongarevan technique (28, pp. 127, 128, figs. 14, 17). The plaiting of the body of the baskets is in twill. At the bottom are a few rows of check, the size of the basket being made smaller by superimposing two alternate diagonals or two alternate diagonals and plaiting the two diagonals as a single element. The baskets are finished with a braid.

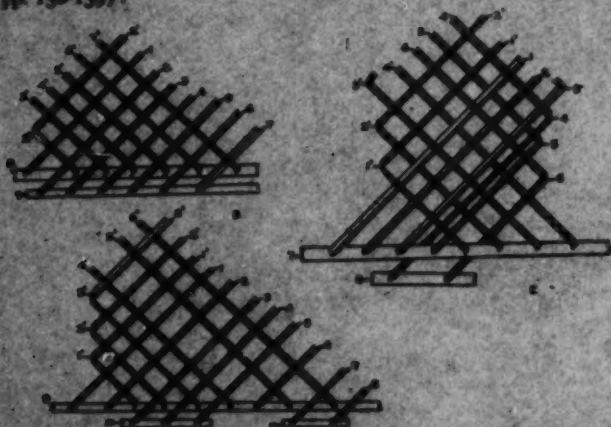
NAME	NUMBER	PLAITING TECHNIQUE			USE
		COMMENCEMENT	BODY OF MAT	FINISHING	
Pala	Chay	whole midrib (see 30, p. 103, fig. 22)	13 rows twilled two's	three-ply braid with free tail tucked under crossing wefts	floor mat or rough wall screen
Takapua long tail	Chay	two strip (see 30, p. 106, fig. 24)	extra wefts added to make close; plaited for a foot with alternate rows of twill and check, followed by 8 rows of check	three-ply braid, with free end tucked under crossing wefts	floor mat or rough wall screen
Takapua long line	Chay	pairs of right and left midrib strips (the lamine) in check with single closed leaflet wefts (see 27, p. 910, fig. 111)		three-ply braid, with free knotted ends pushed under crossing wefts	floor mat or rough screen
Wakapua	Chay	turned back two strip (fig. 15, a), continuous upper strip containing 11 natural dextrals, lower strip containing 15 dextrals of which first 3 from left function as dextrals, 3-13 turned back to form sinistrals	13 rows of check	three-ply braid, free tail fastened with knot	platter for storage or transport of food
Palapala line	Chay	turned back two strip (fig. 15, b), lower strip containing 15 natural dextrals, of which 1 and 3 act as dextrals; 3, 4, 5, turned back to engage dextrals of first superimposed upper strip of 3 dextrals; 7 and 9 form sinistrals engaging 8 and 10; 11, 12, 13 form sinistrals engaging second upper section of 3 dextrals; 14 a dextral, 15 a sinistral	8 rows of check	three-ply braid, with free end tucked under crossing wefts	container for fish
Palapala	Chay	same as for palapala line	13 rows of check	braided tail	placed on ground to hold tako cones when preparing for cooking

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Bernice P. Bishop Museum—Bulletin 150

1: Beaglehole and Beaglehole E-5 (1934-5)/1936 Pukapukans

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715 Baskets made with the Pukapukan turned-back, two-strip commencement (fig. 15*a,b,c*) are called generically *talo*. They are used for transporting talo coconuts, coconuts, crabs, and the like. Small baskets with one or two points are sometimes used to hold talo pudding (*olo*), but they are generally used as shellfish and crabbing baskets. The plaiting technique is the same as for the Manihiki *piso* pointed receptacles (29, p. 117, fig. 33).
1670 Pukapukan baskets in Bernice P. Bishop Museum are described in the list (pp. 138-139):



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715 FIGURE 15.—Common-leaf mat. *a*, turned-back two-strip commencement: middle strip (8) with leaflets naturally directed toward right; leaving out first leaflet (1); remaining leaflets on strip turn back to function as sinistrales (2, 3, 4, 5, 6, 7); sinistrales engage with naturally inclined leaflets of second strip (9) which function as natural dextrals (1, 2, 3, 4, 5, 6, 7). *b*, discontinuous two-strip commencement: lower continuous leaflet strip (9) carries leaflets naturally directed toward right; leaving out dextral leaflets 1 and 2, leaflets 1', 2', 3', 4' are turned back to function as sinistrales, engaging with naturally inclined dextral leaflets (3, 4, 5) carried by second strip (10); leaflet 6 of first strip (9) keeps its natural direction and acts as a dextral; the next two leaflets of this strip (7, 8) bend back to act as sinistrales engaging previous dextrals; leaflets (7, 8) of third strip (11) act as natural dextrals and will engage with turned-back sinistrales of first strip; course of plaiting continued by additional strips and turning back of naturally inclined leaflets to left to act as sinistrales. *c*, variation of turned-back two-strip commencement: middle strip (7) carries eight leaflets naturally inclined to right; to establish stroke four leaflets (1, 2, 3, 4) function as natural dextrals; they engage in plaiting stroke remaining four leaflets on strip which are bent back to act as sinistrales (1', 2', 3', 4'); additional strip (8), carrying two natural dextrals (4, 6), placed under first strip (7), and two extra dextrals engage with turned-back sinistrales of first or upper strip (7); when stroke has been established, edges are formed by giving a half turn to sinistrales at left edge so that free sinistrales are converted back into functioning dextrals; for right edge, free dextrals given a half turn to left and continue to function as sinistrales in plaiting.

NAME	NUMBER	SIZE	PLAYING TECHNIQUE		FINISHING	USE
			COMMENCEMENT	BODY OF BASKET		
Kete ava ma	CB002 (2 specimens)	12" long, 14" deep, 4" wide; 10" long, 18" deep, 5" wide	turned-back, two-strip	check	single-tail braid; free end knotted close to right side bottom on outside	used for carrying coconuts
Kete ava ma	CB154	12" long, 14" deep, 5" wide	turned-back, two-strip	check	single-tail	used for carrying crabs or coconuts
Angapilo maihai (pointed, triangular)	CB079	12" deep, 10" rim diameter	plaiting technique same as for Manihiki pits pointed receptacle (90, p. 117, fig. 33)		all sinistrals braided together and knotted; same for dextrals	shell fishing and crabbing basket; occasionally used for talo pudluga (olo)
Angapilo maihai	CB106	10" deep, 6" rim diameter	similar to CB079		same as CB079	same as CB079
Angapilo maihai (two points)	CB078	9 1/2" deep, 6" rim diameter	same as CB079; open leaf check corners made by turning normal lean of sinistrals to right so when basket is turned over to plait opposite side, sinistrals function as dextrals and dextrals as sinistrals		ends braided, passed over and around commencement strip, knotted above strip so that tail is made fast to prevent basket falling open when full	used for shellfish
Angapilo maihai	CB159	7" deep, 7" rim diameter	single strip of leaflets with each leaflet split longitudinally, left half turned back as sinistral, right half acts as dextral; other split leaflets added to make close plaiting	check	all sinistrals braided into short tail and knotted; dextrals braided and knotted over end of commencement strip	used for shellfish
Angapilo wai havo (basket made with a handle)	CB176	7" long, 5" deep	4 strips of midrib each carrying 2 leaflets; open leaf check similar to chin basket of Aitutaki (26, p. 168) and to chin basket of Tahiti (16, p. 22, fig. 2), whence it may have been introduced		2 dextrals and 2 sinistrals on each side braided into four-ply braid. Knot of core pushed through braid of other tail, thus forming handle	used only by children as a fishing basket for yellow mullet (kaloma)

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2x6
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Beeblehole—Ethnology of Fukuoka

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Beeblehole and Beeblehole I-5 (1934-5) 1930 Fukuokans

NAME	NUMBER	SIZE	PLANNING TECHNIQUE			USE
			COMMENCEMENT	BODY OR BASKET	FINISHING	
Ola wall box	Ch:77	width, bottom 4 1/2", top 5 1/4"; depth, 7 1/2"	twisted two-strip	twill with few rows of check at bottom	two-course braid, (red tails tucked under crossing elements in- side)	child's fishing basket
Ola wallbox	Ch:77	width, bottom 4 1/2", top 5"; depth, 5 1/4"	twisted two-strip	twilled two's with no extra commencement leaflets	concealed double tail, free tail tucked under crossing welts inside	child's basket used in grouping for fish
Ola box	Ch:40	width, bottom 10", top 19"; depth, 15"	twisted two-strip	begins with 3 rows of twilled four's and two's followed by 4 rows of twilled two's, then alternate dextrals and sinistrals brought together and plaited as single elements in 3 rows of check	two-tail finish (28, p. 125, fig. 18), free ends tucked under cross- ing welts on inside	fisherman's basket used for bait or fish- line
Ola outside	Ch:73	width, bottom 10", top 30"; depth, 15"	twisted two-strip	twilled two's	two-tail finish, free ends pushed through to inside then to out- side	used to hold flying- fish catch
Ola wall box	Ch:64	10" long; 31" wide at greatest diameter	twisted two-strip	4 rows twill, 6 rows check, 4 rows twill, 3 rows check, 2 rows twill. Top shaped by plaiting 2 elements as single element in 13 rows of check	two-braid, ends knet- ted together on out- side to form rough handles	used to block mouths of fish weirs
Kete two weirs	Ch:51	18" long, 12" deep, 8" wide at top	discontinuous strip, lower strip containing 23 leaflets, engaging with 7 discontinuous strips of 2 or 3 leaf- lets each (fig. 15, b).	check	two-braided tail, free end tucked under crossing welts at one side	used for lading talo

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[223]
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A small receptacle or container of coconut leaf is sometimes made to transport young birds from the reserve islets to Wale. The containers function also as bird cages.

Receptacle C8144 (*pupu manu*) is made from a length of coconut midrib, 14 inches long and carrying 10 leaflets, cut from the tip end of a coconut leaf. The plaiter works with the midrib base uppermost, and starting from either end plaits the leaflets in a close check to form a cone 20 inches long, base diameter 4 inches (fig. 16). The base is finished with a three-ply braid, and the two free ends of the braid are knotted together. When a bird is placed inside the cone, the base is fastened together by interlacing a leaflet from side to side through and under the base braiding. If the receptacle is used to transport flowers or plants from the islets, the cone-shaped container is plaited round the objects.

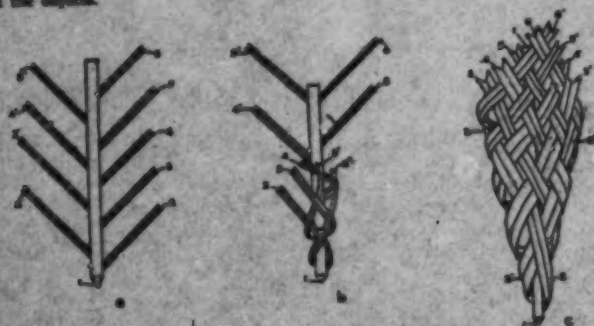


FIGURE 16.—Commencement of cone-shaped receptacle (*pupu manu*). a, section of midrib (1), carrying nine leaflets (2, 3, 4, 5, 6, 7, 8, 9, 10); broad base of midrib uppermost. b, commencement of plaiting: leaflet 2 carries across from left to right and engages leaflets 3, 4, 5, 6, 7, 8, 9, 10; process continues, alternately bending left side leaflets to right, right side leaflets to left, plaiting leaflets in check. c, result after several plaiting strokes: leaflet 2 has engaged leaflets 3, 4, 5, 6 and has passed around under cone; similarly, leaflet 3 has engaged leaflets 2, 4, 5, 6 and passed to other side of cone; other leaflets, those from left side functioning as dextrals, those from right side as sinistrals, plaited together in open leaf check; only six leaflets on each side figured, but process continued with all leaflets on midrib base; when cone is large enough, free ends of leaflets braided in three-ply braid, and two ends of braid knotted together, forming fixation edge for mouth of receptacle.

Platters (*loulou*) on which food is served are characterized by a natural concavity formed by the dull side of the coconut leaflets when plaited or folded together. All pudding platters for the talo dish called *olo* have the braided finishing edge; all fish platters have the overhand knot finish; all platters for the talo dish called *lolo* have the non-braided, double-knot finish. All platters are approximately 18 inches wide and 9 to 12 inches deep.

FIGURE 17.—Platter *loulou* for *olo*. is used for serving the talo pudding (*olo*). The platter has the Pukapukan turned-back, two-strip commencement. It is plaited in open

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275 leaf check for 6 rows. The dentrals are gathered together and braided in three-ply, and fastened with a knot; the alistrals are similarly treated.

Platter *Chika* (*lousa ou llo*) is a platter for serving fish. It has a single-strip commencement in which four leaflets from the left function as dentrals and four leaflets on the right are turned back to function as alistrals. Two leaflets carried on one strip are added to make the plating cheer. The plait is in check for a depth of 12 inches when dentrals and alistrals are gathered together on one side and tied in a double overhead knot with the gathered webs from the other side.

Platter *Chika* (*lousa ou llo*) is a platter for serving the dish called *lolo*. It has the turned-back, two-strip commencement, and the body of the platter is plaited in open leaf check for a depth of 12 inches. In finishing the edge, all the dentrals are carried across to the right side and knotted. Similarly, the alistrals are all carried across to the left side and knotted.

MALO

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285 Formerly the everyday dress of the Palapuan man was the coconut-leaf male (*malo lausia*), made by ordinary plaiting technique. It was worn during working hours and thrown away when soiled. The following *malos* is typical:

Male *Chika* (*malo lausia*) is made from a strip of midrib 15½ inches long, carrying 10 leaflets (pl. 3.B). Each of the six leaflets in the middle of the strip is split into four lengths longitudinally. These 24 elements are plaited in a close check to a depth of 10½ inches, width 7 inches. What is really a small coconut sheet is narrowed by plaiting two elements as one for five rows and then four elements as one for one row, the ends being gathered together and braided in a four-ply tail of which each ply is composed of four elements. The tail is 15½ inches long and finished with an overhead knot. The sheet material has a natural concavity on the dull side of the leaflets. The two end leaflets on either end of the commencement strip are each split into two longitudinally and braided in a four-ply tail, finished with an overhead knot, 24 inches long on one side, 20 inches long on the other. The commencement strip is chewed with the teeth and softened before wearing.

FANS

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293 Both coconut leaf and pandanus fans (*ai*) are made by the women and used on all occasions by men and women. (See pl. 3, A.) A square fan made of pandanus is similar to a type of Samoan fan figured by Bask (27, p. 633, and pl. LV, B, 4), but the style is said to be old in Palapuanas:

This fan (*Chika*), *ai lausia lausia ou a llo*, is plaited in check with web of *llo* and *lausia palapuanas* (pl. 3.A.1). It is 7 inches square and mounted on a handle of paper wood 14 inches long and ¼ inch wide. The commencement of the plaiting is by the ordinary pandanus mat technique. The left edge and the bottom edge are plaited to a depth corresponding to half the size of the completed fan. At the working edge a shed is made the width of the fan. A long strip of *llo* material, the width of the handle, is laid in this shed, passing underneath and back over the last element of the shed. The handle, which has been widened down to half its thickness, is laid in the shed on top of the *llo*. The strip of *llo* is brought back and laid on top of the handle, the free ends of the *llo* strip projecting beyond the proximal end of the handle. Plaiting continues beyond the handle which is then gripped by the crossing webs, as alternate elements forming the shed are laid down and taken up. The fan is then turned so that the previous left edge is at the bottom of the plaiting and the handle projects to the left.

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The new functioning left edge of the fan is now plaited and the top edge finished off with the customary neat finishing technique (*shikings*), the projecting sinistrals being cut off flush with the top. The dextrals are pushed underneath crossing wefts and cut off close to the right edge of the fan. The free ends of the *lio* strip are tied round the handle with a double overhand knot to prevent the fan from coming off the handle when in use.

Coconut-leaf fans of characteristic Polynesian shape, base of triangle at the top, apex at the bottom, are made either with midribs to which the leaflets are attached or else with leaflets stripped from the midrib.

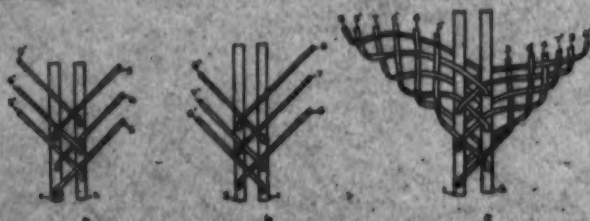


FIGURE 17.—Commencement of coconut-leaf fan (*li yabeyake*). a, midrib strip (1, 2) shown with only three upper leaflets on each to avoid confusion: leaflet 3 carried across to opposite side, opposing leaflet 4 being carried across to its opposite side on top of leaflet 3; leaflet 4 carried across, and right leaflet 5 similarly carried across, passing on top of leaflet 4; similarly with leaflets 5, 6; each leaflet crosses alternately until all are crossed. b, under leaflets of midrib cross as in a; midrib turned over so that left midrib (1) is to right and right midrib (2) is to left; each leaflet crosses alternately from either side as in a; leaflet 6, which is under leaflet corresponding to 3, crosses over leaflet 3, corresponding to leaflet 5. c, establishment of plaiting stroke: leaflet 3 from midrib 1 carried across and given forward half turn to engage with leaflet 6 which has come across from underneath and is itself given a forward half turn to engage with leaflet 4 from midrib 1; similarly with leaflets 7, 8 and leaflet 5; on other side, leaflet 5 engages with leaflet 6, leaflets 4, 5 with leaflets 7, 8 from opposite side; plaiting continued by carrying across all leaflets on either midrib to opposite side and plaiting in closed leaf check; when body of plaiting is large enough, top edge finishes with ordinary pandanus-net finishing technique.

Fan C8474 (*li yabeyake*) is made from two pieces of midrib cut from the tip end of the coconut leaf (pl. 3.4.3). Each midrib is 13 inches long. The left midrib has 9 leaflets on one side, 8 on the other; the right midrib has 9 leaflets on one side, 7 on the other. In the finished fan, the butt ends of the midribs form the handle. Commencement and establishment of plaiting stroke are shown in figure 17. The fan is plaited in closed leaf check. At the top, each closed leaf is split into two and the finishing edge is plaited with five rows of check. Commencing with the top left corner, the edge is finished with the common neat technique (*shikings*), the projecting sinistrals cut off; the free ends of the dextrals are cut off on the line where each weft was previously split into two. The fan is neat and compact, the *shikings* finishing technique providing a strong, slightly curved finishing edge. This fan is 16½ inches long, 15½ inches wide across the top.

The same technique is employed with individual leaflets. The required number of leaflets, depending on the size of the fan, are stripped from the tip of the midrib and

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divided into two bundles with the tips of the leaflets lying in the same direction. The butt ends of the two bundles are laid together and roughly fastened with a leaflet. Commencing about 4 inches from the proximal ends of the butt leaf bundles, leaflet 1 from the left bundle is passed to the right, leaflet 1 from the right bundle is passed to the left over leaflet 1 of the left bundle. This process is continued until all the leaflets have been crossed over. The leaflets are then plaited in closed leaf check and the finishing edge made with the *ikibings* technique. The two bundles containing the butt ends of the leaves are bound together with transverse turns of sennit, the completed fashing having buried commencement and finishing ends (pl. 3.4.8). The technique is the same as that of the midrib-handle fan shown in figure 17 save that the handle is composed of the butt ends of the leaflets bound together.

Fan *Chib* (*in yaryar*) is a smaller fan made by the same technique. It commences with check plaiting, goes on to twilled cross, twilled three, and finishes with rows of check. The fan is 13½ inches long, 6 inches wide at the top, which is straight instead of curved as with the other two fans. The handle is bound with nine turns of common string.

CORDAGE

- 283 Various materials are used as cords. Readily obtainable materials that serve a need of the moment are coconut leaflets and strips of fiber from the coconut midrib or from dried *pulaka* stalks. These are used without preparation and discarded when no longer necessary. More permanent cordage is made from the husks of the coconut and from bark of the *waw* tree. *Waw* fiber is used for fishlines where quality is more important than quantity; coconut fiber is used for every variety of cord where strength and quantity are desired. Human hair is occasionally used to make short cords by which valuable ornaments (*yawa*) are hung from the neck.

Waw fiber is prepared for the finer fishlines as follows:

Bark is peeled (*uwawale*) by a man from a small branch or sapling (*yall*) of the *waw* tree and rolled up into a bundle (*pahef*). A woman proceeds with the task. She puts the bark in a wooden bowl and covers it with fresh water. Then she places a strip of bark on a flat surface, a special board or the blade of a canoe paddle, with the inner surface of the bark lying downward on the board, and scrapes (*ruke*) away the green outer bark with a shell until only the white inner bark is left. When all the strips of bark have been scraped, they are braided together at the ends by the man or woman to make a bundle of strips termed *in* *waw*. This *in* is hung in the sun for about two weeks to bleach. At the end of this time, each strip is rubbed with a half coconut shell until it is soft and pliable. Each strip is then shredded (*yaywag*) into narrow widths (*yale*) which are ready to be made into fishlines.

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Appliances used in *waw* bark preparation are:

Scraping board *Chag* (*pafo ruke waw*) is a board of *pafo* wood, 21 inches long, 4 inches wide, and 1¼ inches thick. The scraping surface has a slight transverse convexity.

Shell scraper *Chag* (*hoi*) is a highly polished and smoothed black-lipped pearl shell; greatest length 3¼ inches, greatest width 3¼ inches, thickness at the hinge ¼ inch, thickness at the lip 1/16 inch.

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Heads of fiber *Chig* (*in waw*) is a semi-bleached hank of prepared *waw* bark from which line may be made. Thirty-one strips of bark ranging in length from 3 feet to 6

*The tree is now often prepared from the bark, *waw*.

CLOTHING FOR SPECIAL OCCASIONS

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Both men and women wore special clothes for festivals. The dress of the man for sports contests consisted of the malo of pandanus or the malo of semit, or both. A non-contestant might also wear a poncho-like garment called *la kypwpe*, and a semit malo with attached feathers. The semit malo (malo lewa) and the pandanus malo (malo kie) are described elsewhere (pp. 133, 146). Both are worn for wrestling contests, formerly also in warfare. The semit malo alone is worn for other contests like spear throwing. The method of donning the two malos (*poin te malo*) is as follows:

First each fringed edge of the pandanus malo is turned in to make a longitudinal fold about 4 inch deep. The malo is then folded longitudinally a second time along the medial line so that the final width of the malo is about 3½ inches. An assistant takes the malo at the middle section and passes it round the waist from back to front crossing the two free ends above the navel. The malo is pulled tight; one free end is passed down over the genitals, through the legs, and brought up the back to hang over the shoulder. The other free end is brought up over the chest and also hung over the shoulder. The assistant takes the commencement end of the semit malo, places this loop over the pandanus malo at the navel, and winds the semit malo round the waist on top of the free end (thus burying it) and over the pandanus malo. Five or six transverse turns are made down, then a similar number of turns made up and over the first turns. The assistant continues to wind the malo round the waist until the twisted semit end is reached. This end is passed down on the outside of the transverse turns, pushed under, and brought up underneath the transverse turns and over to the front again. The free end is pushed through and caught over the downward turn of the semit cord, pulled tight, and the free end passed along the malo for about 8 inches, and bound round it again. This binding is continued until the transverse turns of the semit malo are secure, the free end of the binding cord being fastened with a knot to the last transverse binding. One free end of the pandanus malo is now brought down from the front shoulder, passed down over the semit malo, pushed up and underneath the semit, then obliquely down and under again, continuing to bind the pandanus malo round the semit malo until the middle of the back is reached, when the free end of the pandanus malo is tucked under the semit. At the back, the second free end of the pandanus malo that has passed through the legs is similarly bound round the semit malo and worked round to the front where the free end is tucked under the semit malo. Depending on the length of the pandanus malo, the binding turns will be spaced or contiguous. For composite dart throwing contests, the semit malo alone is girt on as described. One man always helps another to gird on either malo. An alternative method of donning the two malos is given by Marguerat (no. p. 46 and pl. 4).

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There is a reference in a chant to a malo termed *malo hula*. Informants could give little information about this garment, though they suggested it was not necessarily worn by the chief alone but might be worn by any man who was fortunate enough to own one. It consisted of the ordinary five-ply semit braiding, but at each twist of the braiding, the quills of small red feathers were inserted and caught by this twist. The name of the bird from which the feathers were obtained had been forgotten.

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Some braided five-ply malos were formerly made from human hair, possibly the hair of a beloved child who had died. Presumably these malos

1. [See also: *Ma'atua*, pp. 143, 152--analysis.]

292 were shorter than those made of sennit and were therefore worn more as ornaments than as protective clothing.

523 Both the male of sennit and the male of pandanus are greatly valued today in terms of sentiment and scarcity. No longer being made, they are the greatest heirloom that a man can hand on to his son. Sennit malo 763 CB146 was procured from a childless man who felt he had no further use for it. During the confessional held as a last desperate attempt to save the life of an only male child, the sennit malo that the child would inherit was hung from the house tiebeams as if its highly charged sentimental value might help the child to hold onto life (p. 338).

824 Informants suggested that the hands of contemporary Pukapukans are different from those of ancient Pukapukans and that therefore the art of making the very tight five-ply braid of the sennit malo has been lost. But, as both malos might be classed by missionaries as heathen garments, there is no longer sufficient incentive in the culture to take the trouble to make them.

283 The art of making the poucho-like garment (*le kapepa*) worn by men above the pandanus malo has been lost, but from informant's description it seems that it is plaited of fine strips of *le* pandanus material. Three or four elements were plaited as a single element (*lepa tole* or *lepa toe*). 292 The garment was rectangular, falling to the waist at front and back. The neck hole was either square or roughly V-shaped. Hanging ends were 828 fringed with strips of *le*, and the garment was fastened with strings of male cord (*metai male*) on either side, one pair of strings under the arms, another pair at the waist. Informants felt that there was no status associated with the wearing of this garment, but it was worn on festive or ceremonial occasions by anyone whose wife or relative had acquired the technique of plaiting it from a dream in which familiars came from the Underworld to teach it. The following lines of an old chant were quoted to prove the antiquity of the garment:

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Walewowa ki le le kapepa
Tupatupa a Yiva angoti
Yough on walewowa.

Clothed in the *le kapepa*
Made so in Yiva (legendary land)
certainly,
Smiled its fringe.

292 Informants said that a Palapukan man returned from the land of Yiva where the art of making *le kapepa* was also known. He was wearing a foreign-made *le kapepa* when he landed. The people went to greet him and some pressed the fringe of the garment to their noses. This fringe had the smell of a foreign land or of a foreign people. It may be inferred perhaps that the garment was introduced into Palapuka from the land of Yiva and never became a common article of wear, its use dying out rapidly when the Palapukans acquired European garments.

292 Corresponding to the *le kapepa* worn by men was a sort of short cape (*yea*) worn by women. The art of making the *yea* has been lost today.

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upper profile to the customary longitudinal spar (*hiwe*) linked to the cross beam on the port side of the canoe. Informants also mentioned that formerly a big canoe made for fishing off the grounds by Tima Road was fitted with two stern pieces (*orio*). The *orio* was cut from a single wide block of wood and two fish-tail ends were added cut instead of one. This variation was characterized as a type of decoration (*waka-mamea*) without utilitarian function.

One canoe in active use had attached to the hull only half of the customary two-piece bow cover. The fore part of the bow, usually covered by the sail, was open, but the after part of the cover, the *paka*, complete with wave guard (*maile paka*), was securely linked to the hull. Informants remarked that this was an idiosyncrasy of the builder of the canoe. He had been faced by a shortage of wood during construction some years previously and had not been bothered to complete his canoe, but was on the contrary rather proud of its odd appearance.

SAILS

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Two types of sail, both said to be old, are in use today when canoes sail to the laiti. The first is a triangular sail, *la mata hekehe* (*hekehe*, pointed); the second, a gaff sail, *la tihi a Te Felo*, named after the Yavaka navigator who visited Pukapuka. Both types of sail were formerly made of pandanus (*lau wala*) plaited in single element cheek (*lango tai*). The sail was made large enough to allow for an overlap which is hoisted over the summit becket rope (*mauni hi loto o te la*) by which the sail is supported on the mast. (See figs. 31, 32.) The hoisting was done (*hai*) with pandanus material (*hai hi*) through holes made with a bone of the abale fish or a piece of *nganipa* wood. Sheets (*tapoupeu*) of two-ply twisted annit are fastened to the becket ropes by coarbed knots.

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Formerly the mast (*tihi la*) was made in two parts: a crotch (*tau maupe*) was linked to the mast pole (fig. 31.b). The mast was raised by resting the crotch end on the forward cross beam (*hauka hi mau*). Several turns of annit were made around the beam to prevent the crotch from slipping sideways. Stays (*haka*) supporting the mast are shown in figure 31.c.

The sail is supported by the top of the mast in one of three ways: the guy (*mauni*) by which the sail is hoisted aloft may be passed through a hole (*pu*) bored through the top of the mast; the guy may be passed over a natural branch cleft (*tau maupe* or *hiwe*) at the top of the mast and passed down to the canoe; the becket (*pu*) in the peak of the sail may be passed over the top of the mast before the mast is raised—the mast is thick enough at this end to prevent the becket from slipping down. The last method is used only in small canoes. In all three methods when the sail is aloft the guy is fastened to the port side of the forward outrigger beam.

Today, the mast is usually long enough to rest against the bottom of the canoe. It is linked to the forward cross beam with figure-of-eight turns of heavy annit, or else the guy passing from masthead to forward lifting bar is continued back to the cross beam to make several turns around both mast and cross beam. Ultra-modern Pukapukan sailors stop the mast in cup-shaped blocks cut out from the floor of the hull, or else link to the *wakaheke* planks with holes in them through which the mast is slipped.

The sail is further supported by a horizontal beam (*tihi lalo*) with a crotch at one end, resting against the bottom of the mast just above the lashing of mast to cross beam. The other end of the beam (*ulu tihi lalo*) is fastened to the sail by a becket. A main sheet (*mauni*) of annit is fastened by a cleve hitch to the beam from which it runs to

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At the end of each day's fishing the canoes come ashore; the fish are taken to the village meeting place; the head, gills, and heart of each fish are preserved as a record, and the body of the fish given out to housewives to cook for the feast on the third day. The count for fish is as follows: albacore, bonito, pole, kumot, and teenage fish count one each; one female turtle counts as one fish, but a female turtle with eggs counts as one fish plus one fish extra for each egg she carries. Hence a female turtle may count as high as 105 fish, and the village fortunate enough to make this catch is almost sure to win. A male turtle is usually counted as 50 fish, but owing to recent disputes this has been lowered to 10 fish.

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The return of the canoes is accompanied by great excitement. The villagers gather on the beach to watch the canoes land. It is dusk and coconut-leaf torches light up the scene. Children sport in the shallows and cry out excitedly whenever a canoe returns with a good haul. There are many disputes as to the total village count of fish and rumors of the fish counts from the other two villages. On the second day excitement quietens down only when a band of young men comes racing back from a visit to the other villages with definite news of scores. Formerly when the canoes were beached, it was permissible for the women to taunt and joke with the men in the fullest freedom, and under cover of the dusk to pick out lovers and slip away with them to the bush. Single and married men participated in this freedom, and so after-complaint about an erring spouse received any attention. Old chaffs carry reference to these occasions of permissible freedom in sexual relations (1).

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On the third day the people gather together for the food division. Fish from all three villages, together with a levy of 10 rats for each adult and much prepared talo, are placed in a pile and divided among the lineage groups in each village. The winning village spends the day chanting songs of boasting and glorifying nature and doing appropriate dances. The dancers are dressed in leaf decorations according to village tradition.

Losing a fishing contest is due to breaking the tapu governing the pre-contest prohibition period, or to idleness on the part of the women left in the villages, or women's quarrels, gambling, gadding about, and laziness at mat making and domestic tasks while the men are fishing, and if a man comes home and learns from gossip that his wife has been idling about, he is justified in beating her for having thus provoked bad luck. In another exhibition fishing contest in which Yato men won, ill-behavior of Ngaiu women was given as the cause for Ngaiu's defeat. Lots was donated for this reason too and also because of unethical conduct on the part of some fishermen in the division of fish. Instead of taking all fish caught to the village meeting place to be divided, individual fishermen kept back fish for the sole use of their families. One man also removed a *hohi* head from the fish pile without waiting for the decision of the food dividers. It was suggested by informants in the other villages that this behavior was so disgraceful that it was doubtful whether Loto village could win a fishing contest for many years to come.

MAT-MAKING CONTESTS

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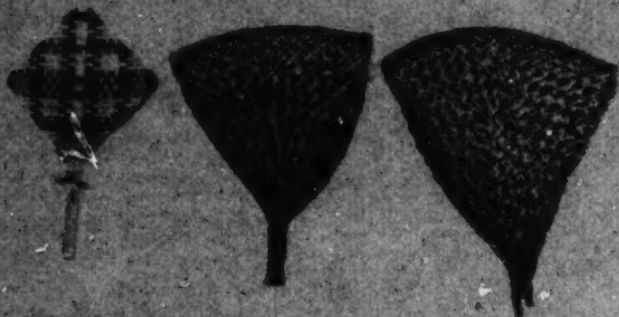
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In former times women held mat-making contests (*uungapaga panga*). A day was fixed for the starting of the plaiting. The village that first finished the required number of mats was the winner of the contest. The number of mats was specified beforehand. They were of a standard size with decorative borders added if desired, though the contest was primarily one for speed. The winning village had the privilege of making a grand parade through the villages, showing off the mats (*liahi na panga*) and chanting as they did so.

Beaglehole and Beaglehole E-5 (1934-5) 1938 Pukapuka

Figure 5. Beaglehole

PLATE 100, PLATE 3



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FANS AND MALOS. A, FANS: 1. PLAITED PANDANUS MATERIAL; 2. PLAITED WITH LEAFLETS STRIPPED FROM COCONUT MIDRIB. BUTT ENDS OF LEAFLETS GATHERED TOGETHER AND BOUND WITH SENNIT TO MAKE A HANDLE; 3. MADE WITH TWO LENGTHS OF COCONUT MIDRIB AND LEAFLETS PLAITED IN CLOSE CHINESE. B, MALO OF COCONUT LEAF; MIDRIB STIP TOGETHER WITH BRAIDED END LEAFLETS FORM WAIST GIRDLE. BODY OF PLAITED LEAFLETS CONCEALS GENITALS AND BRAIDED TAIL IS PASSED BETWEEN LEGS, FASTENED TO WAIST GIRDLE AT BACK. C, MALO OF FIVEPLY BRAIDED SENNIT, ROLLED FOR STORAGE AS A DISC AND HELD TOGETHER BY TRANSVERSE TURNS OF FIXED THREEPLY SENNIT.

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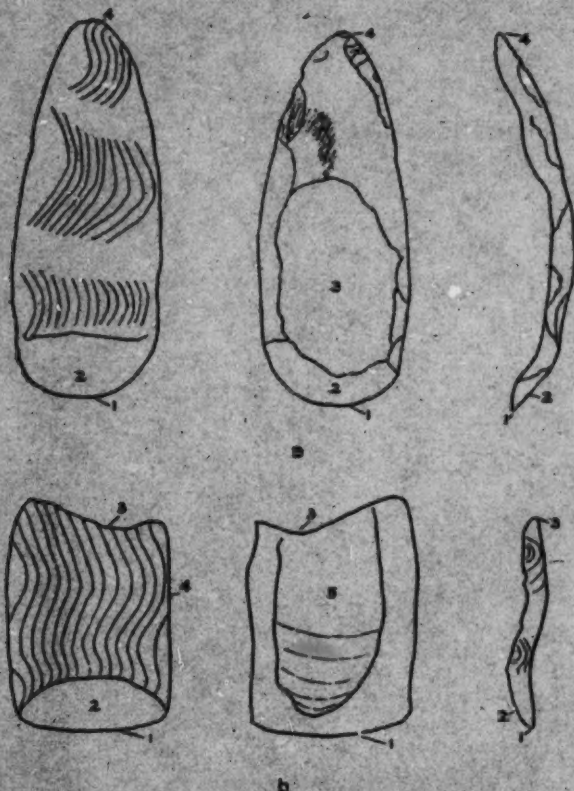


FIGURE 13.—Adzes of *Tridacna* shell. a, back, front, and side views (adz no. C 6527, Bernice P. Bishop Museum): 1, cutting edge; 2, bevel; 3, concavity of surface; 4, poll; greatest length, 4.75 inches. b, back, front and side views (adz in possession of E. D. Frisbie, Tahiti): 1, cutting edge; 2, ground bevel; 3, poll; 4, straight side; 5, central depression from natural concavity of shell; greatest length, 3 inches.

UTENSILS

415 A small satchel of lauhalā collected at Pukapuka has the following
 ● 285 features.

Rectangular-sided and measuring 10 inches long, 8 inches high, and 1.5 inches wide, the satchel is made in simple check pattern. The bottom is flat and has square corners made by turning the strips as they are plaited. Each side is ornamented with strips of hala dyed red with native dyes. These strips are inserted over and included with the plaited elements. The pattern is X-shaped and is 7 inches long. On one side of the basket a solid square of the dyed hala is made between the forks formed by each arm of the X. The reverse side has two squares in each fork. The plaiting is commenced and

Macgregor—Pukapuka

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finished at the edge of the basket and is seamless. The end elements of the finishing edge are turned over and worked into the plaiting over the opposite elements. The basket has two handles made of braided strips of hala which are sewed to the sides. 415 285

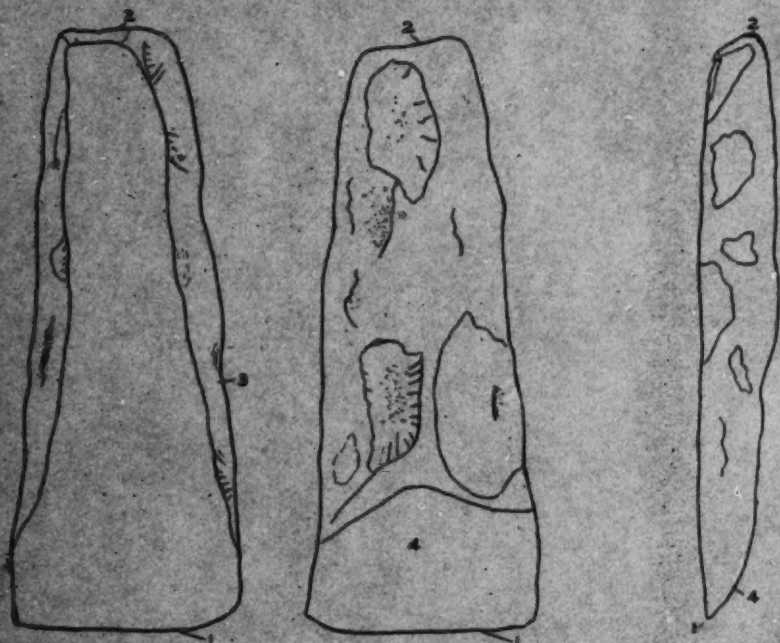


FIGURE 14.—Quadrilateral adz of basalt (no. B 8809, Bernice P. Bishop Museum), front, back, and side views: 1, cutting edge; 2, poll; 3, oblique side; 4, bevel; greatest length 7.5 inches. 412 177

Food is mixed in wooden bowls (*kumote*) (fig. 15). They are hewn from single pieces of wood and shaped into elliptical bowls with flat bottoms. Short handles are cut at either end. 415

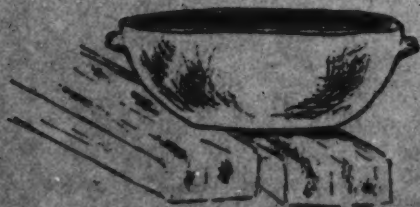


FIGURE 15.—Elliptical wooden food bowl with end lug handles and flat bottom.

793 If the priest has been wholly attentive to his duties, and has
834 been continent the night before the favor is asked, then the
226 gods turn a favorable answer and fishing is successful.

227 [See 1: Beaglehole and Beaglehole, p. 58--analyst.] A
286 kaloma net, e.g., a net used for small beach fish, is made
of uka, 10-12 fathoms long, and 6-9 feet deep. It might require
2-3 years to make. The mesh is very small. Val pule shells
were attached to the bottom of the net to serve as weights,
and sections of pukama wood were attached at the top to serve
as floats. Hauling ropes of kawa tau were served with uka,
and attached to the ends of the net.

854 The Pukapukan infant is fed when he is hungry. He plays
855 when he has energy. He sleeps when he is tired. He does
863 any or all these things at any time of the day or night, almost
any time, because he mercifully does tend to sleep for most
of the night, provided he is young enough, and when he is
older, what matters it if he does or not? He can look after
himself by this time and so not trouble his elders. The
Pukapukan child has no feeding difficulties. If he is not
hungry, he does not eat. The older child takes his food share
away, and either stores it up for a hungry hour or else shares
it with another. Nor has the child any excretory difficulties.
He is not badly scolded if he dirties his mat; the mat is easily
cleaned and so is he by being dropped into the sea. And soon,
since no one pays much attention to his excreta, and excretion
is considered as natural in this society as eating, he soon
learns to go to the sea himself whenever he has need to.

764 [See 1: Beaglehole and Beaglehole, p. 162--analyst.] (From
Pau--doubt as to accuracy) Gravestones for children: small
stones of any material about 6-9 inches high. Young boy,
not wakataner: the stone is placed in the ground with its long
side upright. Young girl, not w'wawine: the stone is placed
in the ground with its long side on the ground. Children will
be buried close together, with the head and feet stones touch-
ing those of the next grave. There is no feeling about keeping
apart in death wale atua even if they should happen to belong
to the same po. Stones for children will be unshaped panga.

285 Note that the making of baskets with handles was not an old
177 Pukapukan custom, but had been introduced, most likely from
Rarotonga. Even today these baskets have not any other use
save as Bible carriers on Sunday. Their place in Pukapuka was

Beaglehole and Beaglehole--14 E-5 (1934-35) 1953 Pukapukan

285 filled by the open oia and the tulumu of lau wai pakapaka.

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225 [See 1: Beaglehole and Beaglehole, p. 69--analyst.] When the turtles are seen joined together in copulation, men swim out and surround the turtles. One man dives down underneath the turtle, and comes up to grasp the foreflippers, *kapakapa*. He pushes the head up, the rear parts are depressed, the man puts his legs around the turtle's body and holds it. His companions come up, stretch the foreflippers apart and tie them to a stick. The turtle is then lifted into the canoe and brought ashore.

526 Te Awaawu and Ngaliyeyu were the originators of the game
776 *Lakipoko*, and through their teaching it to Wotoa and his friend, the game was introduced into Pukapuka.

776 [See 1: Beaglehole and Beaglehole, p. 308--analyst.] Atua punupunu [principal gods of the paternal lineages]: When asked the meaning of the word punupunu, informants say, "round". When reminded that the Pukapukan word for round is pukapuku and that punupunu is the Rarotongan word, then informants hedge and say the classification must be atua pukapuku. When asked to explain the meaning of such a classification, they say they do not know, whether it might have referred to a round stone that represented the god or whether to something else, informants simply do not know.

782 When the aliki [chief] or the wola [executive] go to pray to [the goddesses] Tana, each takes with him lau niu or lau wuti which he ties round watu Tana. "This is to make the stone look pretty, glad, and happy so that it will listen receptively to the prayers of the men." No food offerings were ever given to Tana, only the wrapping of leaves.

539 Native texts.

The Revenge (Literally the Oven) of Two Girls. [For English translation see 1: Beaglehole and Beaglehole, pp. 379-380, category 116 or 539--analyst.]

Ho te lina o Lau Tamawine. No Tonga lina. Eia lina o lina
lainga; ho Manawune ma Tangaloa. Wo loa lina tamawine
ia ki Yayaka. Wehaka loa iunga o Na Tui Wuewue. Te make
loa lina. Wakalongolongo loa te wenua ia i te teleka o lina
loa. Wo loa ia te wenua ia ki a Tuiimatea, Ikiiki mai loa ki te